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Investment Newsletter – June 2016

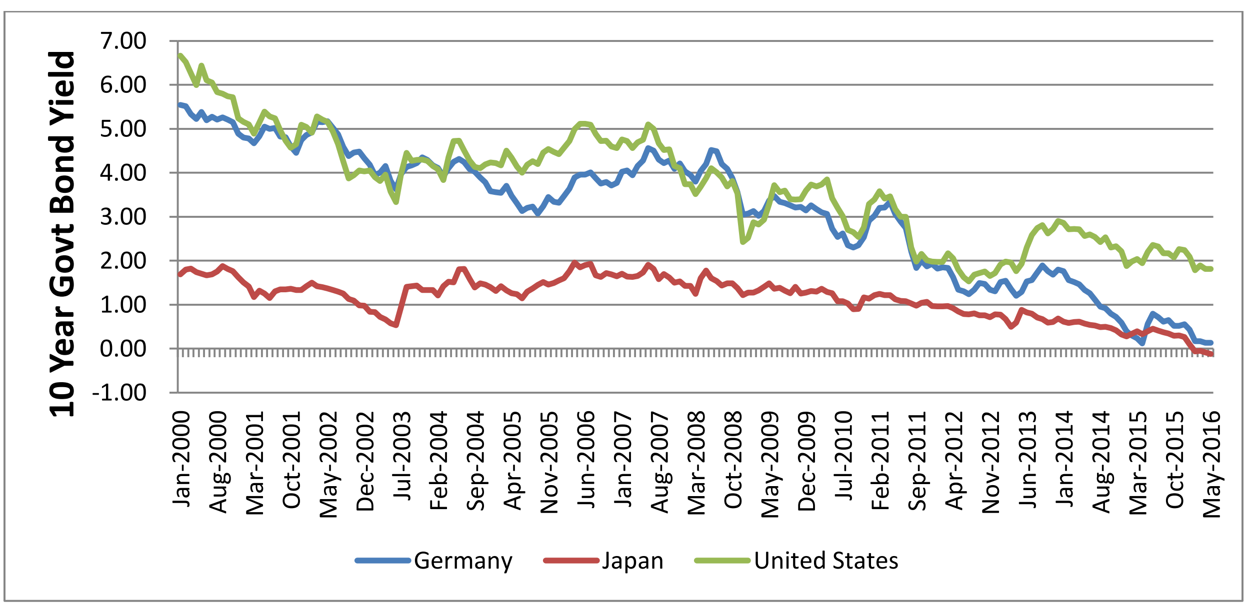
The United Kingdom's vote to exit the European Union has been the big news in the press, but arguably the bigger news this year is the large decline in interest rates across the developed economies. At the end of the newsletter we'll provide some brief comments on the crack up in Europe, but the major focus will be on what is going on with interest rates and the impact on investors. I'll explain why I think China is depressing interest rates and economic growth in the rest of the world and provide some possible future scenarios for how economic events may unfold.

Extremely Low Interest Rates: Causes and Effects

At any given date there are a great many different interest rates that prevail. Rates differ across various dimensions with the following being the most important:

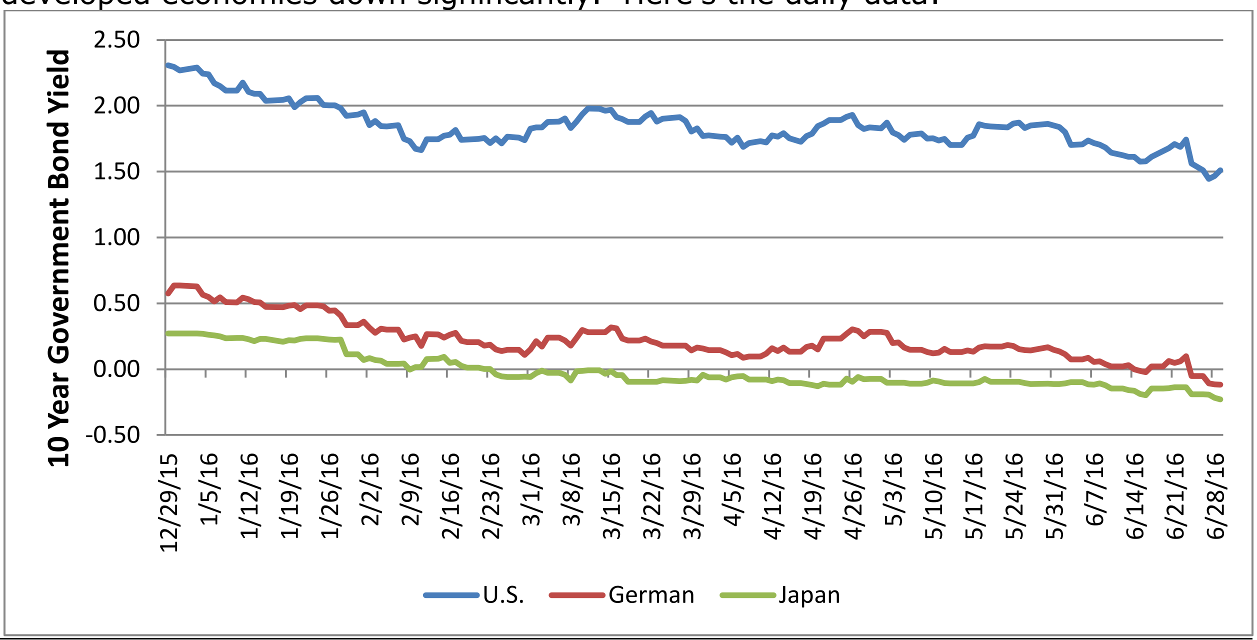
1. Currency in which money is lent, i.e. U.S. dollar, Euro, Yen, British Pound, etc.
2. Time over which the interest rate will be in effect – 1 day to 50 years (or more)
3. Degree of credit risk of the borrower – i.e. credit rating/ probability of default

Let's start by looking at the long term interest rates – meaning 10 year bond yields – in developed markets. Here's the recent history of the government bond yields:



Central Banks in the U.S., Europe, and Japan set the 1 day interest rates. For longer term rates they cannot directly determine the rates but they can influence them by actively trading in bond markets. In the U.S., the Federal Reserve purchased long maturity bonds under its quantitative easing policy from December 2008 to October 2014. They started discussing the end of the bond purchases in May 2013 – which caused the jump in rates around that time. Japan's central bank has been buying bonds via its quantitative easing program off and on since March 2001. The European central bank has been buying long term bonds since March 2015. In addition both Japan and Europe have set negative central bank interest rates – meaning they are effectively taxing their banks on money the central bank is forcing them to hold via quantitative easing. Thus these banks have an incentive to also buy bonds and push down interest rates across the economy.

In 2016 central bank efforts to reduce long term interest rates, combined with adverse economic conditions, have pushed interest rates in the major developed economies down significantly. Here's the daily data:



This month the U.S. rate hit 1.44% - within .01% of the all time low set in 2012. At the end of 2015 the rate was 2.27% so this is a very large move. It has been something of a surprise to many market participants because the Federal Reserve Bank's plan to raise short term rates was expected to push long term rates up.

Causes of Declining Interest Rates

Interest rate levels are closely connected with rates of inflation. Lenders expect to earn some additional purchasing power by investing their funds. As inflation declines, this should lead to lower interest rates. Japan has experienced virtually no inflation since its real estate bubble popped in the late 1980's. Since the financial crisis in 2008, inflation in Europe and the U.S. has also declined to the point where it is considered too low. Inflation is impacted by many things, including consumer psychology, but the main driver of declining inflation (or deflation) is an excess of supply relative to demand.

One of the major factors pushing inflation lower recently is excess capacity in commodities producing industries: oil and gas, steel, mining, etc. China is responsible for most of these excesses, as I will discuss later, but the excess supply of oil and gas resulted from the development of hydraulic fracturing (fracking) technology in the United States. This technology produced huge gains in oil drilling productivity and rapidly increased oil and gas production in the U.S. Increases in energy demand have not kept up with the increase in supply. Prices have fallen as storage sites near capacity.

The housing boom in the U.S. last decade left behind a large over supply of housing in many local markets (though not the Bay Area). The slow absorption of this excess supply has dampened the rise of the shelter component of the consumer price index across the nation as a whole.

Because of the downward pressure on prices, central banks in Japan, Europe, and the U.S. have bought bonds to push down interest rates in an effort to combat low inflation. The theory is that by pushing interest rates down, they reduce the cost of doing business and thereby cause businesses to invest in expansion. Low interest rates also should cause consumers to borrow more for spending because lower interest rates lead to lower payments on debt. Thus low interest rates should increase spending on houses and cars since these purchases are generally financed. Central bank officials seem to believe that this policy will increase demand faster than supply and therefore push prices and inflation up.

Unfortunately easy credit terms have some side effects. When interest rates are set too low, money flows to unproductive investments. For example we had far too much money invested in housing just before the housing bubble popped. Monetary stimulus is not driving business investment as it normally would because the long run profitability of new business investments is low. Real profits at public companies are going down and most of the recent high profile start-up companies are losing money almost as fast as they raise it. For example Tesla has accumulated losses of $2.6 billion; it had negative cash flow of $2.2 billion in 2015. Uber is another large technology company that is burning through investor money as fast as Tesla (they don't publish financial statements but rumor has it they lost $2 billion in 2015). Perhaps low prospective returns are responsible for the decline in new business formations since the financial crisis. Although official statistics are murky, anecdotal evidence indicates that the excess supply in the world economy, combined with continuing investment in low return projects, is driving down overall returns on capital. This must, in turn, reduce rates of return earned by savers.

Another way of looking at it is that inadequate demand (relative to supply) means that worldwide savings is too high. Previously much excess savings was lent to governments like Greece and Spain that helped prop up demand by providing various benefits to their citizens. Their levels of borrowing and spending were not sustainable for the long term and these countries have cut spending to live within their means. In the U.S. as well, there has been a massive reduction in the deficit spending to reduce the speed of debt accumulation. Even Japan has raised taxes to slow down the growth in the government's debt burden. In theory, the decline in interest rates and return on capital should discourage saving and lead to more consumption but it doesn't appear to be working that way.

China's Role

The following table provides some context to a discussion of China and its impact on the world economy.

	China		United States	
	2004	2014	2004	2014
% share of World GDP	4.0	13.5	29.5	22.8
Total Consumption % of GDP	55	51	83	83
Capital Formation in Trillions of $	0.8	4.8	2.8	3.5

What we see in this table is that the U.S. consumes a much larger portion of income (83%) compared to China (51% in 2014). In addition, China consumes a lower percentage of its output as gross national product (GDP) increases. The increase in China's share of world GDP and the corresponding decrease of the U.S. share implies a large increase in the percentage of world savings. The result is a huge increase ($4 trillion) from 2004 to 2014 in capital formation in China.

In China the government still owns a large portion of industry and they strictly control the value of the currency and interest rates. Using this power they have purposely sought to build up capital at the expense of consumer spending by keeping the currency value, and consumer spending power, artificially low. There has also been an element of financial repression – interest rates on bank deposits are kept much lower than they would be in market economy. Contrary to theory, their citizens seemingly save more, to make up for the low rates of return offered.

Excess savings are currently flowing (via the state owned banks) into corporate debt in China. When I say corporate debt I do not mean private company borrowing as would be the case in the U.S., I am talking about borrowing by government owned enterprises. Debt levels in China have been rising very fast. The First Deputy Managing Director of the International Monetary Fund provided some statistics in his remarks in Shenzhen China on June 11th. He said:

"Let's take a closer look at China's debt profile. Overall, total debt is equal to about 225 percent of GDP. Of that, government debt represents about 40 percent of GDP. Meanwhile, households are about 40 percent. Both are not particularly high by international standards. Corporate debt is a different matter: about 145 percent of GDP, which is very high by any measure. By IMF calculations, state-owned enterprises account for about 55 percent of corporate debt. That is far greater than their 22 percent share of economic output. These corporates are also far less profitable than private enterprises."

This money is being spent on unprofitable expansions of capital assets and residential real estate. It's the same scenario as we had when the government sponsored mortgage agencies in the U.S. invested in billions of dollars of mortgages that could never be repaid. Rather than transitioning to higher consumption levels to support economic growth, China is investing in low or negative return investment projects. A hedge fund manager named Jim Chanos started betting on problems in China when he found out there was 30 billion square feet of new office space under construction in China – enough for a 5 foot by 5 foot cubicle for every single person in China. The amount of over-building in the residential sector is of a similar scale. In the June 21 edition of the Wall Street Journal they reported that Chinese real estate developers are paying more for land than they can sell it for after putting up houses on it. Land prices have jumped 50% compared to last year. In May State-owned Poly Real Estate bought land in a Shanghai suburb for 44,000 Yuan per square meter even though houses in the region only sell for about 40,000 Yuan per square meter. The story is the same in heavy industry with large cement and steel plants coming on line despite vast over-capacity.

The situation in China may end the same way that our own housing bubble ended – with large losses by banks and a contraction in the economy. Given the Chinese government's level of control over everything and their tendency to hide or miss-report information, the adjustment process is not likely to happen as quickly or easily as in our market economy. In the meantime, China's massive over-investment in supply is pushing down prices all over the world. The fact that the state owned enterprises cannot pay back their loans means that China is subsidizing exports to sell at prices that are below costs. This reduces returns on capital throughout the world and drives down inflation and interest rates.

The Effects of Low Interest Rates

When government bond interest rates are very low, investors seek out returns by bidding up prices of other assets. There are several important effects. First, future expected returns that would have been earned as cash flows over time are converted into past realized returns. I.e. future returns drop. Second, when investors see the high realized past returns, they extrapolate that trend into the future and the excitement spurs speculative buying that leads to unsustainable bubbles in asset prices. These are dangerous for financial stability. When they ultimately pop, they generate substantial losses for investors. In turn, that may trigger a recession. Currently large capitalization growth stocks are at valuation levels never seen outside of past financial bubbles.

What I call the first phase of the low interest rate effects, was the over-investment in housing in the United States. Easy credit allowed anyone who could sign their name to bid more than they could afford for a house. This created a boom as everyone enjoyed rapid (and unsustainable) house price appreciation. Homeowners could keep refinancing to spend more money from lenders. Ultimately such credit bubbles pop and the economy must adjust to a lower level of demand corresponding with real incomes. This adjustment comes by way of a recession.

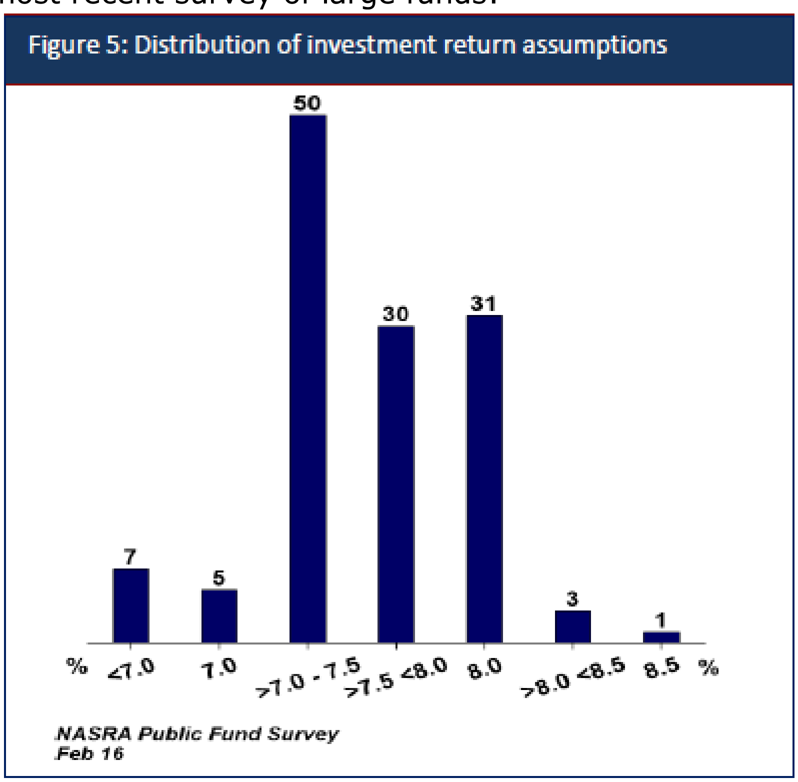
The second phase was over-lending to Portugal, Ireland, Greece and Spain. Low interest rates allowed governments to borrow to support domestic consumption. Eventually it became clear that the debts would rise beyond the governments' capacity to repay the debt. The bursting of the government credit bubble in Europe required a reduction in consumption in the effected countries and therefore recessions in each of the offenders so that the economies could adjust to the new level of spending in line with income. This episode implies a long lasting decline in consumption growth in Europe as the Euro-zone governments use taxpayer money to cover these debts rather than funding further consumption.

Currency values are heavily influenced by interest rates. When a country lowers its interest rates, it typically lowers the value of its currency. Because this immediately raises the price of imports it is a way to increase inflation when policy makers consider inflation too low. This also reduces the real wages of citizens and improves exporters' competitiveness. Effectively, low interest rate policies tend to depreciate the currency and pull in demand from trading partners (at the expense of the trading partners' economies).

The next phase of the world's struggle with low interest rates and excess supply will likely be the popping of the credit bubble in China. The Chinese see it coming; the wealthy are sending money out of the country to the extent that they can get around the government's controls. The Chinese government can pay the debts of the state owned companies, but it might have to resort to printing money- thereby generating inflation and depreciating the currency. Given the damage they've already done to trading partners, it seems likely that significant currency depreciation will trigger trade barriers despite existing trade agreements. I also expect that the adjustment in spending needed in China will cause a recession in China and the economies that are most interconnected with the Chinese economy.

The combination of low interest rates and potential gains in stocks is likely to tempt investors to take on more risk than they can handle. It is easy to become complacent when it seems that the Federal Reserve will always try to drive stocks up if there is ever a major decline. But the reality is that Federal Reserve cannot control stock prices and investors should resist taking positions they cannot stand to hold through a downturn.

As mentioned above, low interest rates can cause a ripple effect that lowers future returns in other assets, including stocks and real estate. That does not mean we are doomed to earn low returns, but it does make things harder. We can be picky about what we buy while waiting patiently for the bubble to burst; then earn normal returns going forward. Unfortunately pension funds, because they are so large, are unlikely to be able to maneuver in and out of assets to avoid the overall low returns. In determining the required contributions from their sponsors, pension funds must make assumptions about their future returns. Here are the results of the most recent survey of large funds:



Given their traditional asset allocations, they are unlikely to earn more than 2% annually over the next 10 years, yet the vast majority are assuming returns of 7% or higher. Over time pension assets will cover less and less of promised payments. Eventually either benefit payments will be reduced or contributions will be increased to cover the shortfalls. In the case of public pension funds that will mean higher taxes.

Much capital will be wasted on low or negative return projects in this low rate environment. This is especially true in China where the financial sector is relatively primitive and directed by government officials. But we will also see many money losing investments here in the U.S. Our task as investor is to avoid joining in by keeping a close eye on how companies respond to low interest rates. We also should be careful about the impact of spillover from China: businesses in the U.S. will be hurt by over-capacity in China.

Political Push Back Against Low Growth

The U.S. presidential campaign has demonstrated that a large part of the American electorate is mad as hell about the status quo. Voters want to shake things up. They know something has changed and incomes are not growing as expected. This attitude is also growing in Europe. Unless the politicians take a hard look and address the real underlying problems it is rather likely that we will see things get worse before they get better. There are too many parallels to the 1930's to be complacent.

The United Kingdom Vote to Leave the European Union

Although there were clearly some cultural factors at work, we can also interpret the United Kingdom's vote against staying in the European Union as another indicator of the unease of citizens in the advanced economies and their mistrust of the solutions offered by the political class.

The European Union was created to reduce the transaction costs associated with trade across borders within Europe. The hope was that reducing these frictions would make the market more efficient so that the continent would be more competitive with the U.S. They were successful in pursuing this goal. Along the way, however, they created a large bureaucracy to administer an ever larger set of rules. The cost of that bureaucracy has apparently reached a point where the average voter in the United Kingdom feels that costs now outweigh benefits. They may be correct. Because all countries in the European Union benefit from lower trading costs and increased market efficiencies it seems unlikely they will be willing to give up a substantial amount to punish their former member. Germany especially benefits from trade with the U.K. There will be some price for the U.K. – but only enough to discourage others from leaving the union. On balance the U.K. could easily come out ahead by escaping the European bureaucracy. Even so, the adjustment process will almost surely result in a recession in the U.K.

Contact Information: RayMeadows@BerkeleyInvestment.com 510-367-3280